

## **ABSTRACT**

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An apparatus and method to actively control noise is disclosed. The input noise is cancelled by generating a control noise that is opposite in phase and same in amplitude as the original noise. The input noise and the control noise is mixed to generate a residual noise signal and an error variation signal. Using the residual noise and the error variation signals as feed back, the control noise is generated such that the residual noise is minimized. The noise controlling apparatus includes phase perceiving part to perceive the phase of the input noise and a micro computer part that processes and generates the control noise without delay in phase from the input noise.